Dominion Nuclear Connecticut, Inc. Millstone Power Station Rope Ferry Road Waterford, CT 06385



SEP 1 2 2002

<u>Docket No. 50-245</u> B18667

Director of the Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission (2) 3 Washington, DC 20555

Millstone Power Station, Unit No. 1
Notification of Planned Disbursements from the
Millstone Unit No. 1 Decommissioning Trust Fund

License Condition 2.C.(6)(c) of the Millstone Power Station, Unit No. 1 Facility Operating License requires the licensee to provide the Director of the Office of Nuclear Reactor Regulation 30 day prior written notice before making disbursements from the Millstone Unit No. 1 decommissioning trust fund. In addition, Section 4.01 of the Dominion Nuclear Connecticut, Inc. (DNC) Non-Qualified and Qualified Nuclear Decommissioning Trust Agreements (Trust Agreements) requires that Mellon Bank, N.A., as Trustee, make payments or disbursements (other than tax payments, ordinary and recurring administrative expenses, or the return of excess contributions) from the decommissioning trust fund after first giving 30 days prior written notice to the Nuclear Regulatory Commission (NRC). These conditions further require that no payment or disbursement be made from the decommissioning trust fund upon prior written notice of objection from the Director, Office of Nuclear Reactor Regulation.

Attachment 1 to this letter contains a description of decommissioning activities planned for Millstone Unit No. 1 from the year 2002 to 2004 along with details of SAFSTOR activities. It is anticipated that these activities will require periodic disbursements from the decommissioning trust fund for a total of approximately \$55,000,000.00. Such disbursements shall be made on a schedule consistent with the work scope accomplished.

This letter constitutes the 30 day prior written notice for License Condition 2.C.(6)(c) of the Millstone Power Station, Unit No. 1 Facility Operating License and Section 4.01 of the Trust Agreements for those activities described in the enclosure. DNC will proceed with providing written direction to the Trustee with respect to the expenditure of funds

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no sooner than 30 days from the date of this letter, unless DNC or the Trustee receives prior written notice of objection from the NRC. Such prior written notice may be directed to:

David A. Smith
Manager, Licensing
Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Glen R. Metzger Assistant Vice President Mellon Bank, N.A. Room 1320 One Mellon Center Pittsburgh, Pa. 15258-0001

There are no regulatory commitments contained within this letter.

Should there be any questions regarding this submittal, please contact Mr. David A. Smith at (860) 437-5840.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price

Site Vice President – Millstone

MELLON BANK, N.A. Trustee, As directed by Dominion Nuclear Connecticut, Inc.,

Gren R. Metzger/// Assistant Vice President Mellon Bank, N.A.

### Attachment (1)

cc: H. J. Miller, Region I Administrator

J. B. Hickman, NRC Project Manager, Millstone Unit No. 1

J. R. Wray, NRC Inspector, Region I, Millstone Unit No. 1

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555

## Attachment 1

Millstone Power Station, Unit No. 1

<u>Description of Planned Decommissioning Activities</u>

#### <u>Description of Planned Decommissioning Activities</u>

#### **Background**

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The decommissioning plan for Millstone Unit No. 1 has been previously described in the Post Shutdown Decommissioning Activities Report (PSDAR) as a modified SAFSTOR strategy which is intended to:

- 1) maintain the spent nuclear fuel in a safe condition (currently in "wet" storage in the spent fuel pool),
- place abandoned systems in their lowest possible energy state (i.e., minimizing water inventory within depressurized mechanical systems and de-energizing electrical systems),
- 3) dispose of residual operational wastes (i.e., "legacy wastes" such as radioactive sludge in tanks),
- 4) dispose of irradiated hardware,
- 5) maintain non-fuel special nuclear material (SNM) and greater than Class C (GTCC) wastes in a clearly identifiable and controlled fashion,
- 6) dispose of hazardous materials, and
- 7) minimize environmental hazards.

Decommissioning activities to date have established a spent fuel pool island (SFPI) specifically designed for long term wet storage of spent nuclear fuel in the Millstone Unit No. 1 spent fuel pool. A majority of the balance of systems not required for the safe storage of spent fuel or facility functions have been abandoned. A majority of legacy operational wastes have been removed.

However, since the original decommissioning plan was developed in 1999, several details have changed. The original plan involved establishing an Independent Spent Fuel Storage Installation (ISFSI) dry cask facility immediately following the completion of the SFPI. Therefore, the spent fuel and GTCC waste would have been transferred to an ISFSI and the spent fuel pool and reactor cavity/vessel water inventories subsequently drained down and disposed of. Also considered in the original plan were early decontamination and dismantlement (D&D) activities on selected components including the disposal of the reactor vessel.

The revised strategy is to maintain the spent nuclear fuel in a wet storage condition in the Millstone Unit No. 1 spent fuel pool potentially until shipment to a Department of Energy (DOE) repository. Currently there is a water inventory in the reactor cavity/vessel of approximately 450,000 gallons which provides no function other than radiation shielding for the reactor vessel internals. Gates are installed between the spent fuel pool and the reactor cavity.

#### Planned Decommissioning Activities

The decommissioning activities planned over an approximate 24 month period involve multiple initiatives to place Millstone Unit No. 1 into a long term SAFSTOR condition which include:

- 1) movement of spent fuel assemblies within the spent fuel pool ("fuel shuffle") to
  - achieve the lowest possible energy state by dispersing the high reactivity fuel assemblies to lower reactivity regions of the pool, and
  - obtain a "3 out of 4" configuration (i.e., 1 out of 4 storage cells spared) for certain fuel racks to eliminate the need to credit boraflex neutron absorbing material for maintaining subcriticality limits,
- 2) reseating raised fuel assemblies in conjunction with the fuel shuffle,
- 3) disposal of irradiated and non-irradiated hardware in the spent fuel pool and reactor vessel.
- 4) segmentation of reactor internals classified as GTCC material,
- 5) elimination of the water inventory in the reactor cavity and vessel, and
- 6) continued removal of legacy waste from selected tanks and vessels.

Prior to removing the water from the reactor cavity, ALARA considerations dictate segmentation of reactor vessel internals. The scope of the segmentation is limited to that portion of the vessel internals characterized as GTCC waste. Removal of the GTCC waste prepares the reactor vessel for eventual disposal. The GTCC waste will be stored in specially designed containers in the spent fuel pool, clearly identifiable and appropriately segregated from spent fuel. The moisture separator and steam dryer assemblies, currently located in their designated laydown area in the cavity, will be reinstalled in the reactor vessel. The vessel head will be installed for radiation shielding. An additional shielding package may subsequently be installed to maintain dose rates on the refueling floor within a targeted ALARA value.

The cleanup of the spent fuel pool involves removal and disposal of miscellaneous irradiated hardware and filters. Hardware in the reactor vessel to be disposed consists of control rod blades and in-vessel instrumentation. Irradiated hardware and non-fuel SNM will be characterized, packaged accordingly, and disposed at a licensed low-level waste facility.

Radioactive sludge from the Cleanup Filter Sludge Receiver Tank and Reactor Building Equipment Drain Tank will be removed and disposed. Radioactive Zeolite and charcoal material from vessels located in the Xenon-Krypton Building will be removed and disposed.

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#### **Annual SAFSTOR Activities**

Activities required during SAFSTOR dormancy include wet spent fuel storage and monitoring, preventive and corrective maintenance on remaining active operating systems, general building maintenance, routine radiological inspections, security, etc.

In addition to the cost for the various monitoring and maintenance activities, applicable property taxes, insurance, electricity, & NRC fees are included in the annual SAFSTOR costs.

The annual SAFSTOR costs are approximately \$3 million dollars (in 2002 dollars) and are escalated 4.5% annually for the life of the SAFSTOR dormancy period.

#### Conclusion

The planned activities have been evaluated relative to the requirements of 10 CFR 50.82(a)(6) and have been determined to constitute necessary and legitimate decommissioning functions which will not foreclose the release of the site for possible unrestricted use, result in a significant environmental impact not previously reviewed, or result in there no longer being reasonable assurance that adequate funds will be available for decommissioning. Further, the planned activities have been evaluated relative to the requirements of 10 CFR 50.82(a)(7) with the conclusion that, although the plan and schedule outlined in the PSDAR are high level summaries, correspondence is necessary to provide an updated description of the actual decommissioning status of Millstone Unit No. 1. Such correspondence will be provided under separate cover.

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